

Amendments to the Specification

Please amend the specification as follows:

The paragraph starting at page 5, line 5 and ending at line 9 has been amended as follows.

a selecting step for selecting a printing mode to be used for printing from a one-side printing mode in which printing is performed on only one side of the printing medium and a two-side printing mode in which printing is performed on both ~~side~~ sides of the printing medium; and

The paragraph starting at page 5, line 27 and ending at page 6, line 4 has been amended as follows.

a setting step for setting one printing mode of a one-side printing mode in which printing is performed on only one side of the printing medium and a two-side printing mode in which printing is performed on both ~~side~~ sides of the printing medium; and

The paragraph starting at page 6, line 19 and ending at line 23 has been amended as follows.

selecting means for selecting a printing mode to be used for printing from a one-side printing mode in which printing is performed on only one side of the printing medium and a two-side printing mode in which printing is performed on both ~~side~~ sides of the printing medium; and

The paragraph starting at page 7, line 14 and ending at line 18 has been amended as follows.

setting means for setting one printing mode of a one-side printing mode in which printing is performed on only one side of the printing medium and a two-side printing mode in which printing is performed on both ~~side~~ sides of the printing medium; and

The paragraph starting at page 19, line 7 and ending at line 25 has been amended as follows.

The amount of ink that can be placed or landed per unit area varies depending on the type of printing media used in the ink jet printer. Some printing media

allow 2 dots of ink droplets to be placed in a unit area, for example, one pixel at a density (resolution) of $1,200 \text{ dpi} \times 1,200 \text{ dpi}$, while others allow up to 2.2 dots of ink droplets to be placed in the same unit area. In this case, if an excessive amount of ink is placed, the resulting print may be degraded owing to bleeding. The table is varied depending on the type of printing media. Moreover, almost all the components of the ink used in the ink jet printer are ~~moisture~~ a liquid, a solvent, and the like which are different from dye of color materials providing color development. Accordingly, as the amount of ink landed on a printing medium increases, the water and solvent containing the dyes move from a printed surface to a back surface, resulting in the show through effect. Thus, in this embodiment, even for the same printing media, different tables are provided for one-side printing and for two-side printing.

The paragraph starting at page 19, line 26 and ending at page 20, line 20 has been amended as follows.

In this embodiment, as described above in Fig. 1, plural inks with different dye concentrations are used for the same color. For example, ~~for~~ cyan ink, dark cyan ink and light cyan ink are composed of components that are almost the same except for their dye concentrations. By using the inks of the different dye concentrations to express bright parts of an image with the light ink, while expressing dark parts with the dark ink, it is possible to provide the dark parts with a sufficient density. Alternatively, plural inks in

which color materials per se having different color development ~~density~~ densities are respectively contained ~~respectively~~ may be used. In this case, ink containing the color material of higher color development density corresponds to the dark ink and ink containing the color material of lower color development density corresponds to the light ink. According to these ink components, flexibility of ink design can be increased such that the maximum use amount of the light ink can be increased and lightness at the maximum amount of the light ink can be shifted toward the darker side. However, the technical method according to the present invention is the same as the case that the plural inks having different dye concentrations are used.

The paragraphs starting at page 24, line 10 and ending at page 25, line 11 have been amended as follows.

The printer according to this embodiment has both dark and light inks for each of cyan and magenta and only dark ink for black and yellow[[:]], a total of six types of inks. The present invention is not limited to this case, but can also be applied, by using darker inks instead, to the case in which each color has both ~~ark~~ dark and light inks or each color has three types of inks, i.e., dark ink, middle ink, and light ink. Furthermore, in the present embodiment, the color processing table is varied so as to vary the color processing B, shown in Fig. 3, between the one-side printing and the two-side printing. However,

arrangements other than the tables may be used provided that they can vary the use ratio of the dark ink to the light ink. For example, a hard-wired logic circuit may be used.

As described above, when the color varying from white to cyan is printed, the total landed ink amount can be reduced over a relatively wide range. Correspondingly, the possibility of occurrence of the show through effect can be reduced. To suppress the show through effect, it may be considered that for the two-side printing, the amount of ink used may be uniformly reduced. However, in this case, the optical density of the printed image often decreases to degrade color development. In contrast, in the present embodiment, even if the total amount of ink used decreases, the dark ink is used instead. This can ~~ensures~~ ensure an amount of dyes required for color development, i.e., the required concentration to prevent problems such as the degradation of color development and the loss of gradation.

The paragraph starting at page 27, line 12 and ending at page 28, line 3 has been amended as follows.

Flesh color in this hue is in the area shown in the figure often and has a lightness (L^*) between 75 and 85, which is represented using an $L^*a^*b^*$ space. Thus, in the present embodiment, the light magenta ink is used in this area to reduce the granularity. A point 6 on the axis of abscissa corresponds to the lightness of about 80. In the present embodiment, for the two-side printing, the landed amount of light magenta ink is gradually

increased up to the point 6 (in a direction from a point 1 to a point 17, the same ~~is~~ as the case described hereinafter). Then, from this point as the maximum amount, the landed amount is reduced and reaches 0 at a point 11. From this point, the landed amount is maintained at 0. The dark magenta ink starts to be provided at the point 6, corresponding to the lightness of 80. Specifically, the light magenta ink, which ~~little affect~~ slightly affects the granularity, is used at the lightness greater than or equal to 80. On the other ~~hands~~, hand, the dark ink is used at the lightness below 80 to reduce the landed ink amount.

The paragraph starting at page 29, line 12 and ending at line 22 has been amended as follows.

In the case that the dark ink amount is gradually increased to compensate for a decrease in the light ink amount, a rapid increase in the dark ink amount may result in degradation of gradation. Thus, desirably, a small amount of dark ink starts to be added at lightness slightly brighter than that for the maximum value of the light ink amount, i.e., at lightness ~~little~~ slightly before point at which the light ink amount ~~start~~ starts to decrease. Then, the dark ink amount is gradually increased. Specifically, the dark ink amount at the maximum value of the light ink amount is larger than zero.

The paragraph starting at page 31, line 6 and ending at line 18 has been amended as follows.

As described above, according to the embodiments of the present invention, printing data used to print the same color varies between one-side printing and two-side printing, and for the two-side printing and for the same ink color, the amount of ink of a lower concentration is reduced, while increasing the amount of ink of a higher concentration, compared to the one-side printing. It is thus possible to reduce[[,]] the amount of ink ejected (landed or placed) per unit area of a printing medium for the two-side printing compared to one-side printing, while maintaining the gradation and a reduced granularity. This, in turn, makes it possible to reduce the amount of ink permeating through to the back side of a printing medium.

The paragraph starting at page 31, line 22 and ending at page 32, line 2 has been amended as follows.

The present invention has been described in detail with respect to preferred embodiments, and it will now be apparent from the foregoing to those skilled in the art that changes and modifications may be made without departing from the invention in its broader ~~aspect~~ aspects, and it is the intention, therefore, ~~in that~~ the ~~apparent~~ appended claims ~~to~~ cover all such changes and modifications as fall within the true spirit of the invention.